2.0 INTRODUCTION AND PURPOSE

2.1 PURPOSE OF THE EIR

This document is a Subsequent Environmental Impact Report (SEIR). It is being prepared because the City of Huntington Beach (City), as lead agency, has determined that changes to the project and circumstances surrounding the project have occurred and new information has become available since the City certified the Final Recirculated Environmental Impact Report (REIR) for the Seawater Desalination Project at Huntington Beach on September 6, 2005 (the 2005 REIR). The 2005 REIR reviewed the existing conditions, analyzed potential environmental impacts, and suggested feasible mitigation measures to reduce significant adverse environmental effects of the proposed project (unless otherwise noted, "project" refers to all aspects of the proposed Seawater Desalination Project at Huntington Beach, including temporary construction-related effects, long-term effects associated with project buildout and implementation, and cumulative impacts). The City approved a Conditional Use Permit (CUP) and Coastal Development Permit (CDP) for the project on February 27, 2006.

Since the time that the 2005 REIR was certified and the 2006 CUP/CDP approved, certain changes have been proposed, as outlined below, and are further described in Section 3.0, Project Description. These changes include the following:

- Changes in operational assumptions primarily related to seawater intake. The 2005 REIR analyzed seawater intake effects (and certain other potential impacts of the project) based on reasonably foreseeable operational characteristics of the Huntington Beach Generating Station (HBGS). Under that scenario, a co-located condition, the desalination facility would draw source water from the discharge of the HBGS, after potential impacts associated with the HBGS intake have already occurred. However, future conditions could include cessation or reduction of the existing power plant's historic seawater intake. Therefore, in addition to addressing the potential impacts of the project based on a co-located condition, this SEIR also addresses seawater intake effects (and certain other potential impacts of the project) based on a "stand-alone" condition, where the desalination facility would be responsible for direct intake of seawater.

- Changes in location and size of project components at the HBGS. The project has been revised to relocate and reorient certain features of the project, including modification to the project site boundaries within the HBGS facility.

- Changes in the route and the pipeline design for the Delivery Pipeline, including addressing an optional alignment along Victoria Street.

In addition, certain circumstances surrounding the project have changed since September 2005 and new information that was not known, and could not have been known at the time that the 2005 REIR was certified, has become available. Changed circumstances and new infomation that may result in new significant effects, as outlined below, are further described in Section 4.4, Air Quality:

- Effects related to regulatory and guidance documents per greenhouse gas emissions and climate change

- Addition of the *Huntington Beach Desalination Plant Energy Minimization and Greenhouse Gas Reduction Plan* to address such effects.

As required under the California Environmental Quality Act (CEQA), the 2005 REIR is replaced by this SEIR in order to address the proposed changes. Therefore, while a discussion of the REIR is provided for historical reference, the REIR is wholly replaced by this SEIR. It is the intent of this SEIR to provide construction-level environmental documentation for the project by applying the most current and detailed plans, technical studies, and related information available. For more detailed information regarding the proposed project, refer to Section 3.0.

This Draft SEIR will be used by the City of Huntington Beach and other responsible agencies and interested parties to evaluate the environmental impacts of the proposed project (refer to Section 3.8, Agreements, Permits, and Approvals Required, for a list of responsible agencies and project approvals).

2.2 COMPLIANCE WITH CEQA

This Draft SEIR has been prepared in conformance with CEQA Statutes (California Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.), particularly California Code of Regulations (CCR), Article 7, Section 15162 (Subsequent EIRs and Negative Declarations). As an SEIR, this document will serve as the comprehensive compliance with CEQA pursuant to CEQA Guidelines.

CEQA Guidelines Section 15162 provides:

> When an EIR has been certified…for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
>
> 1. Substantial changes are proposed in the project which will require major revisions of the previous EIR…due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
>
> 2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR…due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
>
> 3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete…shows any of the following:
>
>   (A) The project will have one or more significant effects not discussed in the previous EIR;
>
>   (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

As part of the review process, the Draft SEIR is subject to a 45-day public review period by responsible and concerned agencies and interested parties. Following this period, responses to comments received will be prepared. The Final SEIR will consist of the Draft SEIR or a revision of the draft, as well as comments received on the Draft SEIR and the responses to these comments. The Final SEIR will be considered by decision makers prior to action on the project.

2.3 SCOPE OF THE EIR

This SEIR has been prepared in order to address the concerns expressed during the 2005 REIR process as well as to address the topics required by CEQA Guidelines Section 15162. Issues addressed within this EIR are as follows:

- Land use/relevant planning
- Geology, soils, and seismicity
- Hydrology, drainage, and stormwater runoff
- Air quality
- Noise
- Public services and utilities
- Aesthetics/light and glare
- Hazards and hazardous materials
- Construction-related impacts
- Ocean water quality and marine biological resources
- Product water quality
- Climate change
- Additional CEQA-mandated discussion (alternatives, growth, cumulative impacts).

2.4 PRIOR ENVIRONMENTAL REVIEW PROCESS

An EIR for the Seawater Desalination Project at Huntington Beach (the 2003 EIR) was first completed in 2003. The process for completion of the 2003 EIR included two public scoping meetings held locally in June 2001 in order to gather information on concerns and issues that the general public may have had regarding the project and the EIR. Local residents, City staff, and representatives from the Southeast Huntington Beach Neighborhood Association (SEHBNA) and the Southeast Homeowner's Association (SEHOA) participated in these first scoping meetings.

The 2003 EIR was made available for public review in September 2002 for a period of 45 days. Twenty-one formal comment letters were received from federal, state, and local agencies, as well as from other interested parties. Numerous public hearings were conducted by the City of Huntington Beach Planning Commission (a total of five public hearings) and City Council (a total of two public hearings) to consider certification of the 2003 EIR. The Planning Commission certified the 2003 EIR on August 12, 2003. On appeal, the City Council voted to deny certification of the 2003 EIR on December 15, 2003, citing a lack of sufficient information in regards to marine biology (entrainment and impingement), growth inducement, and product water compatibility.

Because significant new information was added to the 2003 EIR in order to address City Council concerns, it was recirculated for public review. The REIR for the Seawater Desalination Project at Huntington Beach (the 2005 REIR) was completed in 2005. As required pursuant to Section 15088.5(d) of the CEQA Guidelines, the City of Huntington Beach conducted a consultation meeting on December 7, 2004, to receive agency input on potential impacts of the proposed project. Agencies attending the consultation meeting consisted of the California Division of Oil, Gas, and Geothermal Resources (DOGGR), Orange County Sanitation District (OCSD), Mesa Consolidated Water District (MCWD), and the Municipal Water District of Orange County (MWDOC).

The Draft 2005 REIR was made available for public review on April 5, 2005. During the 45-day public review period, 52 formal comment letters were received from federal, state, and local agencies, as well as from other interested parties. Two public hearings were conducted by the City Council to consider certification of the 2005 REIR. The City Council certified the 2005 REIR on September 6, 2005. The City approved a CUP and CDP for the project on February 27, 2006 (the 2006 CUP/CDP).

On April 3, 2006, the Surfrider Foundation, Huntington-Seal Beach Chapter, and the Sierra Club, Angeles Chapter, filed a lawsuit against the City of Huntington Beach alleging that the 2005 REIR was not completed in compliance with CEQA and seeking a writ of mandate to set aside the City Council's certification of the 2005 REIR. After a full hearing on November 27, 2006, Orange County Superior Court Judge, David C. Velasquez, ruled that the 2005 REIR was completed in accordance with CEQA and denied the writ of mandate. Final judgment in favor of the City of Huntington Beach was entered on January 5, 2007 (Orange County Superior Court, Case No. 06CC00063).

Judge Velasquez's Statement of Decision (filed on January 5, 2007) explained that the 2005 REIR was completed in the manner required by law and that the City Council's decision to certify the 2005 REIR was proper under the law. The judge specifically rejected all of the arguments made by the Surfrider Foundation and Sierra Club, and emphasized that the 2005 REIR's analysis of feasible alternatives and growth-inducing impacts, among other analyses in the REIR, were completed in

accordance with CEQA. Consequently, this SEIR is not being prepared to revise inadequate, insufficient, or improper environmental review. Instead, as outlined in Section 2.1, this SEIR is only being prepared because the City of Huntington Beach, as lead agency, has determined that changes to the project and circumstances surrounding the project have occurred and that new information has become available since the City certified the 2005 REIR.

In addition to the City's processing of the 2005 REIR and project approvals, the applicant has been engaged in permit processing with the California Coastal Commission (CCC) since 2006. The applicant filed their initial application with the CCC for a CDP on May 22, 2006 (Application Number E-06-007). Since the initial filing, the CCC and applicant have exchanged a series of seven additional data requests and responses, related to issues associated with the CCC's regulations at 14 CCR 13053.5(a) (Coastal Act). Through this extensive process spanning over 3 years, the CCC has provided substantial input regarding the scope of the environmental analysis. The scope of issues in this SEIR has been framed in part by the correspondence, studies, and reports that have become available through the CCC permit process.

2.5 EIR ORGANIZATION

The Draft SEIR is organized into nine sections and associated appendices:

- Section 1.0, Executive Summary, provides a brief project description and summary of the environmental impacts and mitigation measures for each impact.

- Section 2.0, Introduction and Purpose, provides CEQA compliance information.

- Section 3.0, Project Description, provides project location, background, and history, project characteristics, project objectives, phasing, agreements, and approvals that are required for the project.

- Section 4.0, Environmental Analysis, discusses the existing conditions for each environmental issue area. This section will describe the methodology for significance determination and identifies short-term and long-term environmental impacts associated with the project and their level of significance before mitigation, recommends feasible mitigation measures to reduce the significance of impacts, and identifies areas of unavoidable significant impacts after mitigation. For certain environmental issue areas, there are important differences in potential impacts of the project based on co-located and stand-alone conditions.

- Section 5.0, Long-Term Implications of the Proposed Project, discusses the significant environmental changes that would be involved in the proposed action, should it be implemented; growth-inducing impacts; and cumulative impacts associated with General Plan buildout and concurrent surrounding projects.

- Section 6.0, Alternatives to the Proposed Action, describes alternatives to the project, some of which may be considered during project deliberations.

- Section 7.0, Effects Found Not to be Significant, provides an explanation of potential impacts that have been determined not to be significant in the Initial Study checklist.

- Section 8.0, Organizations and Persons Consulted, identifies the lead agency; preparers of the EIR; and all federal, state, and local agencies and other organizations and individuals consulted during the preparation of the EIR.

- Section 9.0, References Cited, identifies references cited as informational sources in the EIR.

- Appendices of technical reports and supporting material.

2.6 USE OF THE EIR

This SEIR is part of the environmental review process for the Seawater Desalination Project at Huntington Beach. It is the intent of this SEIR to enable the City of Huntington Beach and other responsible agencies and interested parties to evaluate the environmental impacts of the proposed project. (Please refer to Section 3.6 for a list of responsible agencies having approval authority over the project.) This SEIR suggests measures to mitigate potentially significant impacts of the proposed project.

2.7 INCORPORATION BY REFERENCE

Pertinent documents relating to this SEIR have been cited and incorporated by reference, in accordance with Sections 15148 and 15150 of the CEQA Guidelines, to eliminate the need for inclusion of voluminous engineering and technical reports within this environmental document. This SEIR incorporates the following documents by reference, which are available for review at the City of Huntington Beach Planning and Building Department (located at 2000 Main Street, Huntington Beach, California):

CITY OF HUNTINGTON BEACH GENERAL PLAN EIR, 1995

The City of Huntington Beach General Plan EIR (City of Huntington Beach 1995) addresses the environmental impacts of General Plan buildout, including development of the proposed project site, as well as analysis of cumulative and growth-inducing impacts. The General Plan EIR identified significant and unmitigable impacts related to traffic, noise, and air quality that would result from growth associated with buildout of the General Plan. Significant traffic impacts were identified for Pacific Coast Highway and five intersections within the City. Air quality impacts included exceedance of SCAQMD standards for some pollutants, and the potential for carbon monoxide hotspots. Noise impacts were identified as audible increases in ambient noise for 15 locations throughout the City, due to increases in traffic.

HUNTINGTON BEACH GENERATING STATION PHASE II ENVIRONMENTAL SITE ASSESSMENT, NOVEMBER 27, 1996

The purpose of the Phase II Environmental Site Assessment (ESA) performed at the Huntington Beach Generating Station (HBGS) (CH2M Hill 1996) was to evaluate the environmental condition of the facility by investigating site features that have potential recognized environmental conditions. A secondary objective was to obtain initial information pertaining to the nature and extent of air quality compounds of potential concern and to identify areas that may require future investigation or remediation. The project site is located within the study area limits of this assessment.

CITY OF HUNTINGTON BEACH GENERAL PLAN, 1996 AS AMENDED THROUGH 2009

The General Plan for the City of Huntington Beach (2009) is a policy planning document that provides the framework for management and utilization of the City's physical, economic, and human resources. This document guides civic decisions regarding land use, the design and/or character of buildings and open spaces, the conservation of existing housing, and the provision of new dwelling units, the provisions of supporting infrastructure and public services, the protection of environmental resources, the allocation of fiscal resources, and the protection of residents from natural and human-caused hazards.

CITY OF HUNTINGTON BEACH LOCAL COASTAL PROGRAM, 2001 AS AMENDED THROUGH OCTOBER 2008

In accordance with the California Coastal Act, this document consists of a land use plan, zoning ordinances, district maps, and other actions which, when taken together, implement the policies of the Coastal Act at the local level. The Local Coastal Program (City of Huntington Beach 2001) allows the City of Huntington Beach to have jurisdiction over Coastal Development Permits within the coastal zone portion of the City, as would be applicable to the Seawater Desalination Project at Huntington Beach.

SOUTHERN CALIFORNIA EDISON HUNTINGTON BEACH FUEL OIL STORAGE TANK REMOVAL PROJECT ENVIRONMENTAL ASSESSMENT, APRIL 20, 2000

The Southern California Edison Huntington Beach Fuel Oil Storage Tank Removal Project Environmental Assessment (Arthur D. Little 2000) assesses the significance of any environmental impacts associated with the removal of numerous high capacity aboveground storage tanks used to store fuel oils. Information regarding existing environmental conditions, site status, and tank capacities exists within the document.

PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR EDISON PIPELINE AND TERMINAL COMPANY HUNTINGTON BEACH, MAY 2000

The Phase I ESA for Edison Pipeline and Terminal Company (EPTC) Huntington Beach (X 2000) identifies recognized environmental conditions as defined by the American Society for Testing and Materials (ASTM), with regards to hazardous materials. In addition to recognized environmental conditions, the document identifies "areas of potential concern" to address those environmental issues that do not specifically meet the definition of a recognized environmental condition, but may warrant further investigation. The project site is located within the study area limits of this assessment.

2005 URBAN WATER MANAGEMENT PLAN, MUNICIPAL WATER DISTRICT OF ORANGE COUNTY, DECEMBER 2005.

This document (MWDOC 2005) analyzes water supply and water use efficiency measures unique to the MWDOC's service area. It also summarizes the current and proposed water management activities of MWDOC.

AES HUNTINGTON BEACH GENERATING STATION SURF ZONE WATER QUALITY STUDY (FINAL DRAFT), 2003.

Komex H2O Science, Inc. prepared this document for the California Energy Commission (CEC) (Komex 2003). The CEC required this study as part of the HBGS's retooling project. This study included an intensive water quality monitoring/dye study program that was conducted during the summer of 2002. This study was performed to determine if the HBGS was a source of chronic fecal indicator bacteria problem in the surf zone near Huntington Beach. Samples were collected daily from a number of locations at the HBGS from mid-July to mid-October. In addition, samples were collected every three hours from four locations during a two-week intensive study. Data were also collected in the ocean near the intake and outfall of the generating station. The study found that urban runoff from an area adjacent to the HBGS that is discharged to the discharge vault of the HBGS contained high levels of fecal indicator bacteria. Because the urban runoff is blended with cooling water from the HBGS, the HBGS discharge contained much lower concentrations of fecal indicator bacteria.

A dye study was also conducted to determine if the HBGS discharge has the potential to reach the surfzone. Dye was injected into the discharge vault at HBGS five times in one day in August 2002. The dye surfaced over the outfall and then spread radially in all directions. The average dilution between the discharge and the beach was 277 to 1, while the lowest calculated dilution was 36 to 1. Based on the water quality sampling and the modeling studies, Komex concluded that HBGS was not contributing to the beach contamination problem.

2005 REGIONAL URBAN WATER MANAGEMENT PLAN, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, NOVEMBER 2005.

This document analyzes water supply and water use efficiency measures unique to the MWD's service area. It also summarizes the current and proposed water management activities of MWD.

INTEGRATED RESOURCES PLAN, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, ADOPTED 1996, UPDATED 2004.

The original Integrated Resources Plan (IRP), adopted in 1996, provided a 20-year resource plan that brought a balance between locally developed resources and imported supplies (MWD 1996). It called for investments in water conservation, recycling, groundwater treatment storage, and water transfers, and in return brought diversity and stability. The plan was updated in 2004 (MWD 2004). This update built upon the original 1996 IRP in an effort to ensure that the original vision of reliability, diversity, and flexibility continues to be successful.

WATER QUALITY CONTROL PLAN, OCEAN WATERS OF CALIFORNIA (CALIFORNIA OCEAN PLAN), STATE WATER RESOURCES CONTROL BOARD, 2005.

The California Ocean Plan (SWRCB 2005) serves to protect the quality of ocean waters for the public's use and enjoyment through the regulation of waste discharges into the ocean. The plan establishes water quality objectives in regards to bacteria, physical characteristics, chemicals, biological characteristics, and radioactivity. It also provides methods/programs for the

implementation of these water quality objectives. It should be noted that a non-substantive amendment to the 2005 California Ocean Plan was adopted in September 2009.[1]

CALIFORNIA WATER PLAN UPDATE 2009 STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES, MARCH 30, 2010.

The Draft California Water Plan, Update 2009 (DWR 2009b), assesses California's agricultural, environmental, and urban water needs and evaluates water supplies, in order to quantify the gap between future water demands and the corresponding water supplies in 2050. The series, consisting of five volumes, presents a statewide overview of current water management activities and provides water managers with a framework for making water resources decisions.

SEAWATER DESALINATION AND THE CALIFORNIA COASTAL ACT, CALIFORNIA COASTAL COMMISSION, MARCH 2004.

This report (California Coastal Commission 2004) provides information about many of the issues related to desalination along the California coast, focused on how they relate to the Coastal Act. It summarizes the status of desalination along the coast and lists the known anticipated facilities now being planned. This document also updates the Coastal Commission's 1993 report, Seawater Desalination in California (California Coastal Commission 1993), to reflect changes in technology, improved understanding of coastal resources, and additional policy considerations of the Coastal Act.

The stated purpose of the report was to provide general information about the issues related to desalination along the California coast, to discuss Coastal Act policies that are likely to apply to various proposed desalination facilities and to identify information that is likely to be required during coastal development permit review for proposed facilities.

2.8 TECHNICAL REFERENCES

In accordance with CEQA Guidelines Section 15148, this SEIR cites appropriate technical studies and other reference documents, as indicated throughout the EIR and listed in Section 9, References Cited. These technical studies are available for review at the City of Huntington Beach Planning and Building Department located at 2000 Main Street, Huntington Beach, California.

[1] http://www.swrcb.ca.gov/plnspols/oplans/

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